

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

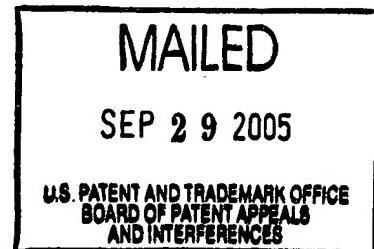
## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte CHARLES F. DRILL  
and MILIND WELING

Appeal No. 2005-2157  
Application No. 08/824,633

ON BRIEF



Before KIMLIN, GARRIS and JEFFREY T. SMITH, Administrative Patent Judges.  
JEFFREY T. SMITH, Administrative Patent Judge.

#### DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 22, 26-30, 34 and 35. The subject matter of claims 23-25, 31 and 32 has been determined to be allowable by the Examiner.<sup>1</sup> (Answer, p. 10). We have jurisdiction under 35 U.S.C. § 134.

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<sup>1</sup> The Examiner did not indicate that the subject matter of claim 33 was allowable. However, claim 33 is a dependant on claim 31 which has been indicated as containing allowable subject matter. Thus, we presume that the subject matter of claim 33 is also allowable. The Examiner should clarify the status of claim 33 prior to disposition of the present application.

BACKGROUND

The present invention relates to chemical mechanical polishing pads that have two polishing regions with each polishing region having distinct polishing characteristics. Representative claim 22 appears below:

22. A polishing pad suitable for chemical mechanical polishing of wafers, comprising:

a circular base layer and an overlying circular top layer, the overlying circular top layer forming the polishing surface of the polishing pad;

wherein the polishing surface of the polishing pad has at least two polishing regions thereon, the at least two polishing regions having distinct polishing characteristics, and wherein the at least two polishing regions are disposed on the polishing pad as concentric annular regions.

The Examiner relies on the following reference in rejecting the appealed claims:

Glover 959,054 May 24, 1910

Claims 22 and 26-28 stand rejected under 35 U.S.C. § 102(b) as anticipated by Glover; and claims 29, 30, 34 and 35 are rejected under 35 U.S.C. § 103(a) as obvious over Glover.<sup>2</sup> (Answer, pp. 3-5). We affirm the rejections.

Rather than reiterate the conflicting viewpoints advanced by the Examiner and the Appellants regarding the above-noted rejections, we make reference to the Answer (mailed January 7, 2004) for the Examiner's reasoning in support of the

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<sup>2</sup> The Examiner has withdrawn all the rejections that included the U.S. patent 5,534,106 to Cote et. al. (Answer, p. 2).

rejections, and to the Brief (filed October 20, 2003) for the Appellants' arguments there against.

OPINION<sup>3</sup>

Upon careful review of the respective positions advanced by Appellants and the Examiner, we affirm for the reasons advanced by the Examiner and add the following primarily for emphasis.

Appellants argue that the appealed claims are not anticipated by Glover because Glover does not disclose the regions of distinct polishing characteristics recited in Appellants' claims. (Brief, p. 6).

Appellants are free to recite features of a product either structurally or functionally. See *In re Schreiber*, 128 F.3d 1473, 1478, 44 USPQ2d 1429, 1432 (Fed. Cir. 1997). *In re Swinehart*, 439 F.2d 210, 212, 169 USPQ 226, 228 (CCPA 1971). However, when describing the invention the inventor must describe adequately and specifically to avoid the prior art. In the present case, Glover discloses the polishing disk has two distinct regions, a course region (2) and a finer region (3).

Appellants argue that Glover has structural differences that render the disclosed polishing disk incapable of performing the claimed intended use for

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<sup>3</sup> Appellants assert that the appealed claims 22-28 are grouped together and claims 29-35 are grouped together. (Brief, p. 4). Appellants have failed to present separate arguments for the respective claims within the stated groups. Thus, for each ground of rejection the claims will stand or fall together. We will address the issues as presented by Appellants in the Brief.

chemical-mechanical polishing (CMP) of integrated circuits on wafer substrates. Specifically Appellants state "Glover, in 1910 would be applicable to disk grinder polishing of items on a macroscopic level. For example, the work piece that Glover would apply his invention to the technology of that era most certainly would not include chemical mechanical polishing, such technology being nearly a century away in the distant future. []Whereas, Appellants' claimed invention is for the polishing of wafers on a microscopic level. The polishing entails the smoothing out of features whose dimensions are on the order of microns and below." (Brief, p. 7).

The present specification does not support Appellants' argument. According to the specification, page 3, CMP techniques are for "smoothing out topography over millimeter scale planarization distances leading to maximum angles of much less than one degree after polishing." Thus, Appellants have not established that the recited intended use of the claimed invention results in a structural difference between the claimed invention and Glover because the claimed polishing disk is not limited to use on a microscopic level as argued by Appellant.

Appellants argue that "[t]he abrasives available in 1910 would be far too coarse to use. Most certainly, emery would not be used in a modern CMP process. The abrasives would wipe away any useful circuit areas printed on the substrate because the size of the abrasive would be similar to the features printed. [] Consequently, Glover's grinding and polishing disk would not be capable of performing the intended use as applied to CMP." (Brief, p. 7). This argument is not

persuasive. Appellants have not directed us to specific portions of the present record which demonstrate that the polishing disk of Glover would not be suitable for smoothing out topography over the millimeter scale, i.e., not suitable for CMP. Unsupported arguments of counsel simply cannot take the place of evidence. See *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

The Examiner has rejected claims 29, 30, 34 and 35 under § 103 as obvious over Glover. Regarding this rejection, Appellants argue “as discussed in reference to ISSUE 1, as it relates to CMP[,] *Glover* does not disclose the regions of distinct polishing characteristics recited in Appellants' claims. Therefore, those claims cannot be obvious in view of *Glover*.” (Page 8). Thus, it appears that Appellants are relying on the arguments presented in response to the previous rejection. These arguments are not sufficient to overcome the Examiner's rejection for the reasons presented above and the reasons presented in the Answer.

#### CONCLUSION

For the foregoing reasons and those set forth in the Answer, giving due weight to Appellants' arguments, we determine that the preponderance of evidence weighs in favor of affirming the Examiner's rejections. Accordingly, the Examiner's rejections under 35 U.S.C. §§ 102(b) and 103(a) are affirmed.

## TIME FOR TAKING ACTION

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv)(effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

## Affirmed

*Edward C. Kimlin*  
EDWARD C. KIMLIN  
Administrative Patent Judge

  
Bradley R. Garris  
**BRADLEY R. GARRIS**  
**Administrative Patent Judge**

  
JEFFREY T. SMITH  
**Administrative Patent Judge**

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